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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,225	02/23/2006	Ronald A. Bozio	026032-5024	9411

22428 7590 12/19/2008
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EXAMINER

ABRAHAM, AMJAD A

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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12/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/569,225	Applicant(s) BOZIO ET AL.	
	Examiner AMJAD ABRAHAM	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/23/2006 and 03/22/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 38-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuch (European Published Patent application EP 0846583 A1-- Made of record by the applicant) in view of Schoemann et al. (USP No. 7,060,215).

5. Regarding claim 38, Takeuch teaches a method of making a molded article for a vehicle interior **(A molding method for making a vehicle trim—see claim 6)**, the method comprising: providing a mold having a first mold section, a second mold section, and a shut-off member **(A mold having a first mold section (part # 42), a second mold section (part #41), and a parting plate (part #33) which acts as the shut-off member—See figures 3-5 and column 6 line 49-57)**, the shut-off member movable between a first position and a second position **(The parting plate (shut-off member) is movable between two positions—See figures 3-5 showing the opening and closing of the parting plate (part #33))** and comprising a forward surface, a first side surface, a second side surface that shares an edge with the forward surface **(The parting plate (33) when closed has a forward surface which contacts the molding die (part number 32) and two side surfaces that each face a mold section and each share an edge with the forward surface)**; injecting a first resin into a first cavity which is defined by the first mold section, the second mold section, and the first side surface of the shut-off member when in the first position **(A resin is injected into the first cavity (mold section 41) which is isolated from the second cavity (mold section 42 by the side wall of the parting plate-- see Figure 4 and column 7 lines 32-58)**; moving the shut-off member to define a second cavity defined by the first mold section, the second mold section, the first resin, the second side surface of the shut-off

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member **(The parting plate (shut-off member) is then opened to define a second cavity (part # 42) which includes the first mold section, first resin, the second mold section and a side surface of the parting plate-- see figure 5 showing the parting plate in an open position);** and injecting a second resin into the second cavity **(See figure 6 showing the end result after the injection of the second resin).**

a. With respect to claim 38, Takeuch does not explicitly teach wherein (1) there is an angled surface that extends between the forward surface and the first side surface of the shut-off member, (2) forming an angled recess in the molded article having an upper surface provided by the angled surface of the shut-off member and (3) wherein the upper surface is provided at a sufficiently flat angle relative to vertical by the angled surface of the shut-off member to obscure the interface between the first resin and the second resin from an occupant of the vehicle interior.

b. However, Schoemann teaches wherein (1) there is an angled surface that extends between the forward surface and the first side surface of the shut-off member, (2) forming an angled recess in the molded article having an upper surface provided by the angled surface of the shut-off member and (3) wherein the upper surface is provided at a sufficiently flat angle relative to vertical by the angled surface of the shut-off member to obscure the interface between the first resin and the second resin from an occupant of the vehicle interior. **(Schoemann teaches a method for making a vehicle trim panel. Schoemann practices a similar concept as applied by applicant's invention and Takeuch as a**

multiple component trim is made in a common mold assembly by way of utilizing a movable mold element (i.e. a parting plate or a shut-off member). Schoemann goes on to disclose that the movable mold element can be modified in a way that imparts an angle to the movable mold element. The stated use of angles and alteration to the movable mold element is to allow one resin material to be over-molded onto the other resin material. Although not readily disclosed in Schoemann it would have been obvious to one having the ordinary skill in the art to angle the movable mold element (shut-off member) in such a way to allow the upper surface to be at a flat surface so that a vehicle owner can only see the resin material which is aesthetically and/or tactilely pleasing.) See abstract and/or column 1 lines 28-57.

c. Takeuch and Schoemann are analogous art because they are from the same field of endeavor which is the production of a multi-component vehicle trim within a common mold by utilizing a movable mold element (shut-off member). At the time of the invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Takeuch and the teachings of Schoemann before him or her, to modify the teachings of Takeuch to include the teachings of Schoemann for the benefit of creating an aesthetically pleasing vehicle trim. Takeuch discloses that the creation of the multi-component trim allows the resin of the body section to be different from the resin of the rib section. Takeuch discloses that the rib sections resin has shock absorption

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qualities but may be difficult to mold and therefore may affect the overall appearance of the rib section. On the other hand, Takeuch discloses that the body section can use a different resin without absorbent qualities that is aesthetically pleasing to an end consumer. Schoemann builds on this idea by allowing transition portion of the resin material to be angled and thereby hiding the unwanted resin from being shown to the end user. Therefore, it would have been obvious to combine Takeuch with Schoemann to make the invention as disclosed in claim 38 because one would have been motivated to create a final product which is aesthetically pleasing to an end user.

6. Regarding claim 39, Takeuch does not specifically teach wherein the first resin is at least partially solidified when the second resin is injected. **(However it would have been obvious to one having the ordinary skill in the art to solidify the first resin to eliminate any deformability that would occur when the shut-off member is opened. The objective of a shut-off member is to define a mold cavity and one having ordinary skill in the art would have solidified the first resin prior to injection of the second resin.)**

7. Regarding claim 40, Takeuch does not specifically teach further comprising a space between the shut-off member and the second mold section when the shut-off member is in the first position so that air can escape from the first cavity to the second cavity during the step of injecting the first resin into the first cavity. **(It is well known in the art to leave a gap, vent, or crevice to allow air to escape during injection. For example see drawing 1 in Haruhiko et al. (Japanese Patent Publication 2002-**

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187166—made of record by the applicant) disclosing T1 which is a gap between the Shut-off member and the mold surface.)

8. Regarding claims 41-43, Takeuch does not specifically teach: (1) wherein the first resin comprises a first color and the second resin comprises a second color different than the first color; (2) wherein the first resin comprises at least one of a thermoplastic material, a thermoset material, or an elastomer material; and (3) wherein the second resin comprises at least one of a thermoplastic material, a thermoset material, or an elastomer material. **(Materials used are made of resins with different properties—see abstract. For example PPF (column 4 line 58) and polyurethane (column 1 line 24). Clearly the use of different materials would suggest to one having the ordinary skill in the art that materials with different colors could be used, either naturally or as a design choice.)**

9. Regarding claim 44, Takeuch teaches a method of making a molded article **(A molding method for making a vehicle trim—see claim 6)**, the method comprising: providing a mold having a first mold section, a second mold section, a first shut off member **(A mold having a first mold section (part # 42), a second mold section (part #41), and a parting plate (part #33) which acts as the shut-off member—See figures 3-5 and column 6 line 49-57)**, the shut-off member is movable between a first position and a second position **(The parting plate (shut-off member) is movable between two positions—See figures 3-5 showing the opening and closing of the parting plate (part #33))**; injecting a first resin into a first cavity which is defined by the first mold section, the second mold section, the first shut-off member in the first position

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(A resin is injected into the first cavity (mold section 41) which is isolated from the second cavity (mold section 42 by the side wall of the parting plate-- see Figure 4 and column 7 lines 32-58); moving the first shut-off member to the second position to define a second cavity without moving the first mold section relative to the second mold section wherein the second cavity is defined by the first mold section, the second mold section, the first material; the second mold section **(The parting plate (shut-off member) is then opened to define a second cavity (part # 42) which includes the first mold section, first resin, the second mold section and a side surface of the parting plate-- see figure 5 showing the parting plate in an open position);** injecting a second resin into the second cavity **(See figure 6 showing the end result after the injection of the second resin).**

d. With respect to claim 44, Takeuch does not explicitly teach: (1) a second shut-off member; (2) wherein the second shut-off member acts to define a cavity; (3) moving the second shut-off member to the second position to define a third cavity without moving the first mold section relative to the second mold section wherein the third cavity is defined by the first mold section; and (4) and injecting a third resin into the third cavity.

e. However, Schoemann teaches: (1) a second shut-off member; (2) wherein the second shut-off member acts to define a cavity; (3) moving the second shut-off member to the second position to define a third cavity without moving the first mold section relative to the second mold section wherein the third cavity is defined by the first mold section; and (4) and injecting a third resin into the third

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cavity. (See column 10 lines 58-67 disclosing that "it will be appreciated that a mold assembly adapted to manufacture a trim component in accordance with the method of this invention can include *any desirable number of movable cores* which define any number of cavities." In sum, Schoemann teaches that a second shut off member can be utilized to create a third cavity in which a third resin is injected into.

f. It would have been obvious to one having the ordinary skill in the art at the time of invention was made to add multiple shut-off elements (movable cores), since it has been held that the mere duplication of essential working parts involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Takeuch and Schoemann are analogous art because they are from the same field of endeavor which is the production of a multi-component vehicle trim within a common mold by utilizing a movable mold element (shut-off member). At the time of the invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Takeuch and the teachings of Schoemann before him or her, to modify the teachings of Takeuch to include the teachings of Schoemann for the benefit of creating a tri-component molded article. Schoemann clearly discloses that at least three cavities can be formed using a blade system as shut-off members. One would have been motivated to utilize multiple shut-off members in order to seal off various cavities for resin injection.

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10. Regarding claim 45, Takeuch teaches wherein moving the first shut-off member between the first position and the second position comprises translating movement.

(See column 7 lines 24-31 disclosing that the parting plate (33) is moved by drive means to move the parting plate forward and backwards. Also see figures 3-5)

11. Regarding claim 46, Takeuch teaches wherein the first position comprises an extended position and the second position comprises a retracted position wherein the shut-off member is disposed substantially within the first mold section. **(See column 6 lines 49-55 and figures 3-5 disclosing that the parting plate (33) is disposed in the molding dies (31 and 32).)**

12. Regarding claim 47-48, Takeuch does not specifically teach: (1) further comprising a gap between the first shut-off member and the second mold section when the first shut-off member in the first position; and (2) wherein the gap is configured to provide a vent to allow air to escape the first mold cavity when injecting the first resin into the first cavity. **(However, it is well known in the art to leave a gap, vent, or crevice to allow air to escape during injection. For example see drawing 1 in Haruhiko et al. (Japanese Patent Publication 2002-187166—made of record by the applicant) disclosing T1 which is a gap between the Shut-off member and the mold surface.)**

13. Regarding claim 49-50, Takeuch does not specifically teach: (1) further comprising the step of bonding the second resin to the first resin and bonding the third resin to the first resin and (2) wherein bonding the second resin to the first resin comprises fusion bonding and bonding the third resin to the first resin comprises fusion

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bonding. **(The objective in the art of molding multiple resin materials together in a single mold is to bond the materials without any additional means (i.e. adhesion or mechanical structure). Fusion bonding typically occurs in injection molding operations as a high contact force (pressure) causes the substrates to hold together. Furthermore, given the limited number of methods of bonding multiple resins in one mold (i.e. adhesive, mechanical, or fusion, it would have been obvious to one having the ordinary skill in the art to try fusion bonding. KSR v. Teleflex 82 USPQ2d 1385)**

14. Regarding claims 51-53, Takeuch does not specifically teach: (1) wherein the third resin comprises at least one of a thermoplastic material, a thermoset material, or an elastomer material; (2) wherein the first resin comprises at least one of a thermoplastic material, a thermoset material, or an elastomer material; and (3) wherein the second resin comprises at least one of a thermoplastic material, a thermoset material, or an elastomer material. **(Materials used are made of resins with different properties—see abstract. For example PPF (column 4 line 58) and polyurethane (column 1 line 24). Therefore, it would have been obvious to use thermoplastics, thermosets, or elastomers to obtain products with multiple properties.)**

15. Regarding claims 54-57, Takeuch does not teach: (1) wherein the first shut-off member moves at about the same time as the second shut-off member; (2) wherein the first shut-off member moves before the second shut-off member; (3) wherein moving the first shut-off member comprises moving the first shut-off member in a first direction and moving the second shut-off member comprises moving the second shut-off member in a

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second direction that is parallel to the first direction; and (4) wherein moving the first shut-off member comprises moving the first shut-off member in a first direction and moving the second shut-off member comprises moving the second shut-off member in a second direction that is not parallel to the first direction.

g. . (Schoemann at column 10 lines 58- 67, discloses that any number of movable mold cores can be used to create any number of cavities. Also see Figure 15, showing that the movable mold core can be at an angle. It would have been obvious to one having the ordinary skill in the art to create multiple movable mold cores (shut-off members) that each had their own drive mechanism to enable the process to be controlled more efficiently. Designating the positions in which the movable mold cores are held in is a conventional design consideration that would have been made by one having the ordinary skill in the art.)

16. Regarding claims 58-60, Takeuch does not specifically teach: (1) wherein the first resin comprises a first material property and the second resin comprises a second material property different than the first material property; (2) wherein the first resin comprises a first color and the second resin comprises a second color different than the first color; and (3) wherein at least one of the first resin and the second resin comprises a material property different than the third resin. (However, Takeuch teaches that materials used are made of resins with different properties—see abstract. For example PPF (column 4 line 58) and polyurethane (column 1 line 24). Clearly the

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use of different materials would suggest to one having the ordinary skill in the art to use materials with different colors, either naturally or as a design choice.)

17. Regarding claim 61, Takeuch teaches a method of making a molded article for a vehicle interior **(A molding method for making a vehicle trim—see claim 6),** the method comprising: providing a mold having a first mold section, a second mold section, a first shut off member **(A mold having a first mold section (part # 42), a second mold section (part #41), and a parting plate (part #33) which acts as the shut-off member—See figures 3-5 and column 6 line 49-57),** the shut-off member is separately movable between a first position and a second position **(The parting plate (shut-off member) is movable between two positions—See figures 3-5 showing the opening and closing of the parting plate (part #33))** ; injecting a first resin into a first cavity defined by the first mold section, the second mold section, the first shut-off member in the first position **(A resin is injected into the first cavity (mold section 41) which is isolated from the second cavity (mold section 42 by the side wall of the parting plate-- see Figure 4 and column 7 lines 32-58);** moving the first shut-off member to the second position and moving the second shut-off member to the second position to define a second cavity defined by the first mold section, the second mold section, the first material, the first shut-off member in the second position, and the second shut-off member in the second position **(The parting plate (shut-off member) is then opened to define a second cavity (part # 42) which includes the first mold section, first resin, the second mold section and a side surface of the parting plate-- see figure 5 showing the parting plate in an open position);** injecting a

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second resin into the second cavity. **(See figure 6 showing the end result after the injection of the second resin).**

h. With respect to claim 61, Takeuch does not explicitly teach the use of a second shut-off member and the movement of that second shut-off member in relation to the first shut-off member.

i. However, Schoemann teaches the use of a second shut-off member and the movement of that second shut-off member in relation to the first shut-off member. **(See column 10 lines 58-67 disclosing that "it will be appreciated that a mold assembly adapted to manufacture a trim component in accordance with the method of this invention can include any desirable number of movable cores which define any number of cavities."**

j. It would have been obvious to one having the ordinary skill in the art at the time of invention was made to add multiple shut-off elements (movable cores), since it has been held that the mere duplication of essential working parts involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Takeuch and Schoemann are analogous art because they are from the same field of endeavor which is the production of a multi-component vehicle trim within a common mold by utilizing a movable mold element (shut-off member). At the time of the invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Takeuch and the teachings of Schoemann before him or her, to modify the teachings of Takeuch to include the teachings of Schoemann for the benefit of creating a tri-component molded

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article. Schoemann clearly discloses that at least three cavities can be formed using a blade system as shut-off members. One would have been motivated to utilize multiple shut-off members in order to seal off various cavities for resin injection.

18. Regarding claim 62, Takeuch does not explicitly teach wherein the first resin provides the molded article with a first wall thickness located between the second shut-off member and the first mold section, and the second resin provides the molded article with a second wall thickness located between the second shut-off member and the first mold section and including the first wall thickness.

k. However, Schoemann suggests wherein the first resin provides the molded article with a first wall thickness located between the second shut-off member and the first mold section, and the second resin provides the molded article with a second wall thickness located between the second shut-off member and the first mold section and including the first wall thickness. **(See figures 7-9 showing production of a first resin component with a wall thickness that was produced between the shut-off member and the mold section. It would have been obvious to have varying wall thicknesses by using multiple shut-off members. See column 10 lines 58-67 disclosing that "it will be appreciated that a mold assembly adapted to manufacture a trim component in accordance with the method of this invention can include any desirable number of movable cores which define any number of cavities."**

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference Harvey (USP No. 6,224,364) which discloses a movable mold element that defines multiple cavities within a single mold. The reference Brodi et al. (USP No. 6,838,027) which discloses the use of a moving slide within a mold to allow multiple thermoplastics to be bonded within a single mold. The reference Youngs et al. (USP No. 7,108,822) which discloses a method for making a vehicle trim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMJAD ABRAHAM whose telephone number is (571)270-7058. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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AAA

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791